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**REMARKS**

This communication is considered fully responsive to the Office action mailed December 29, 2004. Claims 1-29 were examined and stand rejected. Claims 1-3, 6, 9-12, and 25-26 are amended. No claims are cancelled. Claims 30-37 are added. Reexamination and reconsideration are requested.

**Drawings**

The Applicant notes that Item 10 in the Office Action Summary is not completed. The Applicant respectfully requests that the Office "accept" or "object to" the drawings.

**Claim Rejections – 35 U.S.C. §102**

Claims 1-8 and 21-24 stand rejected under 35 U.S.C. §102(e) as being purportedly unpatentable over U.S. Patent No. 6,204,940 to Lin et al. ("Lin"). The Applicant traverses the rejections.

Claim 1 recites in part, "averaging at least two color channels in regions near the minimum of histograms of the at least two color channels". The Applicant respectfully submits that the Lin reference, while disclosing a method to improve the digital processing of scanned negative films, fails to disclose or suggest any processing that averages color channels. The Office points to Lin, Fig. 3, col. 4, lines 12-15 as disclosing averaging at least two color channels in regions near the minimum of histograms of the at least two color channels. The Applicant respectfully disagrees.

Lin Fig. 3 is simply "a diagram illustrating color inversion" which is used to invert the light and dark areas of a negative to reflect the true image. Lin, col. 3, lines 61-65. This process in no way employs an averaging function. Instead, the Lin inversion diagram simply invokes a straight-line conversion: color values of 0 are converted to 255, values of 1 are converted to 254, values of 2 are converted to 253, etc.

Lin, col. 4, lines 12-15 discusses using a mapping function to remap the white and black points of the image. This portion of Lin first describes the construction of a "bounding box," and then states, "[i]n its simplest form, this amounts to setting the maximum red, green, and blue [color] values to the white point and the minimum values to the black point." Lin col. 4, lines 13-22. Such remapping of maximum color values to

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the white point and minimum color values to the black point does not employ an averaging function.

Claim 1 also recites, in part, "selecting the smallest of the average color values as a black point". The Office argues that Lin discloses selecting the smallest of the average color values as a black point, citing Lin, Fig. 3, col. 4, lines 5-60. However, as discussed above, in col. 4, Lin specifically sets the minimum color values as the black point using a remapping function – nowhere does Lin disclose or suggest the use of an averaging function to set the black point.

As another feature, claim 1 recites, in part, "selecting the largest of the average color values as a white point". The Office contends that Lin selects the largest of the average color values as a white point, citing Lin, Fig. 3, col. 4, lines 7-25. However, as discussed above, in col. 4 Lin specifically sets the maximum color values as the white point using a remapping function – nowhere does Lin disclose or suggest the use of an averaging function to set the white point.

Claim 1 as amended recites, in part, "correcting the at least two color channels by adjusting the smallest and the largest color averages to respectively match the values of the black point and the white point to form corrected image data." The Office argues that Lin discloses this element of claim 1, citing Lin, Fig. 3, col. 4, lines 7-44. Nowhere in the cited reference does Lin disclose or suggest correcting color channels by adjusting the smallest and largest color averages.

For at least the foregoing reasons, Lin fails to disclose or suggest the recited features of claim 1. Therefore, Lin fails to anticipate or make obvious the invention of claim 1, and the Applicant requests allowance thereof.

Claims 2-8 and 21-24 depend from claim 1, which is allowable as set forth above. As such, claims 2-8 and 21-24 are believed allowable for at least the same reasons as claim 1, and the Applicant earnestly requests that claims 2-8 and 21-24 be allowed.

Moreover, regarding claim 2, Lin further does not disclose or suggest clipping limits on histograms, particularly clipping of histograms in the context of averaged color values. Thus, Lin fails to disclose or suggest the recited features of claim 2.

Regarding claim 3, as discussed above, Lin Fig. 3 is simply "a diagram illustrating color inversion" which is used to invert the light and dark areas of a negative

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film to reflect the true image. Thus, Lin does not disclose or suggest correcting a color image by imposing a clipping limit on each of the at least two colors so that no more than a predetermined percentage of pixels are identified as black or white pixels. Moreover, Lin's techniques are not operative on average values as is the method of claim 3, since it depends from claims 1 and 2 which disclose the use of averages. Therefore, Lin fails to anticipate or make obvious the invention of claim 3, and the Applicant requests allowance thereof.

Regarding claim 4, Lin does not disclose the selecting of regions near the minimum of histograms based on the darkest non-black pixels. Rather, the method disclosed in Lin col. 4, lines 30-44, arbitrarily maps a certain percentage of non-black pixels to black. Therefore, Lin fails to anticipate or make obvious the invention of claim 4, and the Applicant requests allowance thereof.

Regarding claim 5, Lin does not disclose the selecting of regions near the maximum of histograms based on the lightest non-white pixels. Rather, the method disclosed in Lin col. 4, lines 30-44, arbitrarily maps a certain percentage of non-white pixels to white. Therefore, Lin fails to anticipate or make obvious the invention of claim 5, and the Applicant requests allowance thereof.

Regarding claim 6, while col. 6, lines 25-40 of Lin discloses look-up tables, Lin does not create a look-up table based on the smallest and largest average color values. Therefore, Lin fails to anticipate or make obvious the invention of claim 6, and the Applicant requests allowance thereof.

Regarding claim 7, the Office contends that Lin, Fig. 1, col. 5, lines 1-13 discloses the method of claim 7. No mention is made in Lin of conceptual movement of smallest and largest color averages in the histogram. For at least the foregoing reasons, Lin fails to disclose or suggest the recited features of claim 7. Therefore, Lin fails to anticipate or make obvious the invention of claim 7, and the Applicant requests allowance thereof.

Regarding claim 8, the Office contends that Lin, Fig. 1, col. 4, lines 57-67 and col. 5, lines 1-12 discloses the method of claim 8. Lin Fig. 1 is inapplicable for the reasons cited above. Nowhere in col. 4 or col. 5 does Lin disclose the alignment of smallest color averages with the black point and largest color averages with the white point. For at least the foregoing reasons, Lin fails to disclose or suggest the recited

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features of claim 8. Therefore, Lin fails to anticipate or make obvious the invention of claim 8, and the Applicant requests allowance thereof.

Regarding claim 21, the Office contends that Lin, Fig. 3, col. 4, lines 7-25 discloses the method of claim 21. Lin Fig. 3 is inapplicable for the reasons cited above. Lin col. 4 does not disclose averaging of the color channels near the minimum and the maximum color values of histograms. For at least the foregoing reasons, Lin fails to disclose or suggest the recited features of claim 21. Therefore, Lin fails to anticipate or make obvious the invention of claim 21, and the Applicant requests allowance thereof.

Regarding claim 22, the Office contends that Lin, Fig. 3, col. 4, lines 38-57 discloses the method of claim 22. Lin Fig. 3 is inapplicable for the reasons cited above. Lin col. 4 does not disclose averaging of the color channels so it clearly can not disclose comparing those averages. For at least the foregoing reasons, Lin fails to disclose or suggest the recited features of claim 22. Therefore, Lin fails to anticipate or make obvious the invention of claim 22, and the Applicant requests allowance thereof.

Regarding claim 23, the Office contends that Lin, Fig. 3, col. 4, lines 58-67 discloses the method of claim 23. Lin Fig. 3 is inapplicable for the reasons cited above. Lin col. 4 does not disclose the use or even the computation of average maximum values so it clearly can not disclose determining the amount of conceptual movement of the average maximum values based on the largest average maximum value. For at least the foregoing reasons, Lin fails to disclose or suggest the recited features of claim 23. Therefore, Lin fails to anticipate or make obvious the invention of claim 23, and the Applicant requests allowance thereof.

Regarding claim 24, the Office contends that Lin, Fig. 3, col. 5, lines 1-13 discloses the method of claim 24. Lin Fig. 3 is inapplicable for the reasons cited above. Lin col. 5 does not disclose the use or even the computation of average minimum values so it clearly can not disclose determining the amount of conceptual movement of the average minimum values based on the smallest average minimum value. For at least the foregoing reasons, Lin fails to disclose or suggest the recited features of claim 24. Therefore, Lin fails to anticipate or make obvious the invention of claim 24, and the Applicant requests allowance thereof.

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Claims 1-8 and 21-24 are believed allowable for at least the reasons explained above, and the Applicant earnestly requests that claims 1-8 and 21-24 be allowed.

**Claim Rejections – 35 U.S.C. §103**

Claims 9-20 and 25-29 stand rejected under 35 U.S.C. §103(a) as being purportedly unpatentable over U.S. Patent No. 6,204,940 to Lin ("Lin") in further view of U.S. Patent No. 5,874,988 to Gu ("Gu"). The Applicant traverses the rejection.

Claims 9-20 and 25-29 depend from claim 1, which is believed allowable. As such, claims 9-20 and 25-29 are believed allowable for at least the same reasons as claim 1, and the Applicant earnestly requests that claims 9-20 and 25-29 be allowed.

**New Claims**

New claims 30-37 have been added and are believed allowable because the cited references fail to disclose or suggest each and every claim element.

**Conclusion**

Based on the amendments and remarks herein, the Applicant respectfully requests prompt issuance of a notice of allowance for claims 1-37 in this matter.

Respectfully Submitted,

Dated: March 29, 2005 \_\_\_\_\_

By: \_\_\_\_\_



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